

# STS 800 series Ionising Radiation SIMULANTS

STS specialises in the conversion of standard instruments for training purposes.

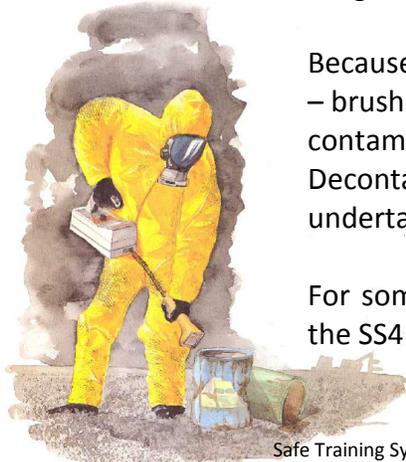
The simulated contamination is a safe liquid - STS LS1 - which can be applied to clothing, equipment, plant and surfaces where it slowly evaporates. Because the gas is very dense, the gas cloud stays near to the surface.

## Operation

This simulation system is used to train staff in monitoring general radioactive contamination, or, in specific sites, Alpha contamination. The gas cloud stays within about 2 cm of the surface, and within this range, the signal will range from 2000cps at almost contact to background at 2 cm. To force the trainee to develop good monitoring technique, the system is regulated so that if the monitor is passed too quickly over the surface or is too far away, little gas is captured. Hence the trainee learns to monitor with the probe close to the surface and travelling slowly.

The period when the LS1 is generating sufficient gas to enable the simulation to operate is dependant on length of time, temperature and roughness of the surface. For example, on a cold concrete floor, the LS1 may remain for 8 hours, while on a warm, rough cloth sleeve the liquid will be have evaporated in less than 1 hour.

In any case, the source will have completely evaporated in 24 hours, allowing a new session to be undertaken without a 'hangover' from the previous training session.



Because the liquid is sticky it is easy to demonstrate transfer of contamination – brushing a hand over a contaminated surface will result in the hand becoming contaminated and then everything touched is also likely become contaminated. Decontamination by wiping or washing will allow clean-up procedures to be undertaken.

For some applications a solid contaminant may be required and STS produce the SS4 powder simulant for this purpose.

